

REMARKS

Claims 1-20 are pending in the application. Claims 1-5 and 11-16 have been withdrawn from consideration. Accordingly, claims 6-10 and 17-20 remain in the case for consideration by the Examiner at this time. In the Office Action, claim 6, line 2 was objected to because of an informality. The term "therefore" has been changed to "thereof" as suggested by the Examiner. Claims 7 and 9 were rejected under 35 U.S.C. 112, second paragraph for using incorrect Markush terminology. By this paper, claims 7 and 9 have been amended as suggested by the Examiner to overcome this rejection.

In the Office Action, claims 6-10 and 17-20 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 and 14-17 of copending Application No. 10/517,098. By this paper, the Terminal Disclaimer is being submitted to overcome this provisional rejection. Additionally, claims 6-10 and 7-20 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1-10 and 17-39 of U.S. Patent No. 7,198,845. Again, a Terminal Disclaimer is submitted herewith to overcome this double patenting rejection.

In the Office Action, claims 6-10 and 18-19 were rejected under 35 U.S.C. 102(b) as being anticipated by Frayer et al. (4,133,777). Applicants request reconsideration and withdrawal of this rejection.

The Frayer et al. reference is directed to a hydrodesulfurization catalyst comprising elongated extrudates whose surface is provided with a plurality of alternating longitudinal grooves and protrusions. The particles are said to have a concavity index between 1.01 and 1.35. In the patent, these grooved particles were compared in performance to cylindrical particles. However, the patent does not disclose the specific cross-sectional shapes of the particles.

The present invention, on the other hand, is directed to a shaped catalyst having a particular cross-sectional shape. The present application acknowledges that there are many shaped catalysts having protrusions and grooves such as trilobe catalysts and quadrulobe catalysts. As set forth in the examples of the application, the present invention was tested against a conventional trilobe-shaped catalyst and was shown to have greater selectivity in a Fischer-Tropsch reaction to C₅₊ products and a lower relative selectivity to C₁ products. Thus, the

specific shape of the present invention was shown to have improved performance over shaped catalysts that include grooves and protrusions.

Applicants respectfully submit that the Frayer et al. reference does not disclose the specific shape of the present invention and therefore does not anticipate the claims. Nor does the Frayer reference suggest the specific shape of the present invention.

In the Office Action, claims 6-10 and 17-19 were rejected under 35 U.S.C. 103(b) as being anticipated by JP 55119445. This patent is directed to a desulfurization catalyst comprising porous alumina which is made into columnar bodies wherein 3 to 6 circles of the same diameter as that of the central circle are disposed around the central circle. These shapes are significantly different from the present invention in which a central circle has two protrusions extending therefrom. As set forth on page 7, lines 15-19 of the specification, the present invention does not relate to elongated shaped particles or catalysts or catalyst precursors in which any of the central circles has three or more protrusions such as trilobes, quadrulobes, etc. Accordingly, Applicants submit that the Japanese reference does not anticipate or disclose the claimed invention.

In the Office Action, claims 17 and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Frayer. Applicants respectfully submit that these claims would not have been obvious over Frayer for the reasons set forth above.

In view of the foregoing, Applicants submit that the claims are in condition for allowance and favorable consideration by the Examiner is requested. Should the Examiner find any impediment to the prompt allowance of the claims that could be corrected by telephone interview with the undersigned, the Examiner is requested to initiate such an interview.

Respectfully submitted,

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